

## **EXHIBIT 3**

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**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA**

ANTICANCER, INC., a California corporation,

Plaintiff,

v.

CELLSIGHT TECHNOLOGIES, INC. a Delaware corporation; and DOES 1-50,

Defendants.

Case No.: 10 CV 2515 (JLS) (RBB)

**SUPPLEMENTAL EXPERT WITNESS  
REPORT OF ROBERT M. HOFFMAN,  
PH.D.**

I, Robert M. Hoffman, assigned to provide expert testimony on behalf of AntiCancer, Inc. (“AntiCancer”) in the above-captioned action, submit this Supplemental Expert Report, in response to the report of Dr. David Stout, purported “expert” witness for CellSight Technologies, Inc. (“CellSight”).

CellSight’s “expert” witness David Stout has a grand total of 5-first author publications and is not last (senior author) on any publications. He also lists abstracts and other non-peer reviewed communications that carry very little weight. Dr. Stout has never had his own laboratory. His position at UCLA appears to be mainly as an animal handling technician. His title is “Adjunct Associate Professor” which is a courtesy title for someone who is not a real faculty member at UCLA. To unambiguously demonstrate Dr. Stouts’ lack of expertise in the scientific area of this case, in vivo fluorescent imaging, please see from page 10-11 of his report:

The fluorescence gene for GFP incorporated into the tri-fusion gene is not suitable for in vivo animal work. Indeed, I have personally used this gene to try to measure GFP signals in live mice using both the IVIS and Maestro imaging systems and have been unable to detect the signal outside of the mouse. Only when the skin was cut open and the internal organs exposed were we able to see that there was in fact a large number of bright sources located around the inside of the animal, but to see them we had to open up the animal after sacrificing them. The term used for looking at deceased animals is “ex vivo,” and is distinctly different from in vivo or in vitro.

Thus Dr. Stout cannot perform an experiment that my students at La Jolla High School can easily do: image GFP fluorescence non-invasively from a signal internal to a mouse.

Dr. Stout goes on to state the following false information from page 7-8 of his report:

... green light. Green light works well for cell sorting using FACS (Fluorescent Activated Cell Sorting), however the very poor tissue penetration [of green light] makes it poor to useless in living animals since nearly all the light is stopped within the skin of the animal.

...

... assays use green fluorescence protein (GFP) signals, since the light is bright and readily detectable, however these assays [of green fluorescent protein (GFP)] almost always fail in vivo because green light cannot penetrate the skin of animals, thus little or no detectable signal is visible using GFP in vivo.

In addition to over 200 scientific publications in our laboratory and large numbers of papers throughout the world, including Dr. Gambhir's own group, with the "trifusion" vector licensed to Cell Sight (Ray et al. Imaging tri-fusion multimodality reporter gene expressing in living subjects. *Cancer Research* 64, 1323-1330, 2004), showed that fluorescent proteins can be used for non-invasive, in vivo imaging. Our laboratory, for example, showed that even a hand-held flashlight could be used for non-invasive GFP imaging in vivo (please see Figures 1 and 2 below). Dr. Hayao Nakanishi's laboratory in Japan also uses hand-held sample devices to see GFP on internal organs non-invasively in nude mice (Figures 3, 4 and 5 below). With sophisticated apparatuses, single GFP cells can be imaged non-invasively at the subcellular level in mice (see Figures 6 and 7 below). Clearly, Dr. Stout does not know how to perform non-invasive, in vivo imaging with fluorescent proteins and does not know the scientific literature that demonstrates non-invasive imaging with GFP in mice since 2000 (Yang et al. Whole-body optical imaging of green fluorescent protein-expressing tumors and metastases. *Proc. Natl. Acad. Sci. USA* 97, 1206-1211, 2000).

Dr. Stout does not list a single publication or abstract on in vivo fluorescence imaging, the topic in question in this lawsuit. Dr. Stout's lack of expertise in GFP imaging is very clear from his "expert" witness report. Dr. Stout clearly does not qualify as an "expert".

It speaks volumes that Dr. Sanjiv "Sam" Gambhir, the founder and principal shareholder of CellSight, did not find a qualified scientist to be an expert witness in this case. Dr. Gambhir has enormous scientific connections with many highly qualified scientists who could have served as an expert witness. In addition, to being Chairman of the Radiology Department at Stanford University, Dr. Gambhir was a student of world famous imager Michael Phelps at UCLA. Dr. Gambhir is also the Director of the Molecular imaging Program at Stanford and has been on the organizing committee of the World Molecular Imaging Congress, the most prestigious yearly imaging meeting in the world.

Dr. Gambhir would have a huge choice among his university, national and international colleagues to choose from to become an expert witness. However, it is clear that none would volunteer for this job since no real scientist would want to deny the truth.

Regarding the "2012 JBC paper", Dr. Stout's explanation of Dr. Yaghoubi's position is a lesson in obfuscation. Dr. Yaghoubi is Chief Scientific Officer at Cell Sight. Dr. Yaghoubi lists his Cell Sight affiliation in the author's byline. It doesn't matter that Dr. Yaghoubi has a courtesy appointments at UCLA or elsewhere, his "day job" is Chief Scientific Officer at Cell

Sight. Dr. Yaghoubi also lists his Cell Sight affiliation in the conflicts-of-interest section of the “2012 JBC paper” and states that Cell Sight has licensed the patent covering work described in the “2012 JBC paper”. The “2012 JBC paper” greatly benefited Cell Sight as it was intended to do.

The “2012 JBC paper” used fluorescence imaging of the L1210 cell line expressing yellow fluorescent protein (YFP), a variant of green fluorescent protein (GFP). The L1210 YFP cell line was used as a type of “positive control” to compare the new PET probe described in the “2012 JBC paper”. Dr. Stout’s statement that in the “2012 JBC paper” that the research did not involve any use of in vivo fluorescence imaging (please see his statement below) cannot be true. Dr. Stout’s statement that “the use of yellow fluorescent protein was only for cell sorting prior to any use in animals”, is not true.

The following is from Dr. Stout’s statement on the “2012 JBC paper” on page 12 of his report:

The paper in Exhibit D authored by Campbell, Yaghoubi, et al., describes a new class of PET reporter genes (PRG) using the radiolabeled substrate L-18F-FMAU. This reporter gene construct contains a yellow fluorescence protein (YFP) gene that is used only for FACS sorting of cells to verify the cells contain the inserted genes. There is no optical imaging, either fluorescence or bioluminescence, of animals in this paper and I have confirmed this with one of the authors.

I note that there may be some confusion with respect to figure 4A, where a dotted circle has an arrow pointing to it with the letters YFP. This was not an optical image of yellow fluorescence protein, but rather a PET scan showing the presence of L-18F-FMAU. The use of the letters YFP was not defined in the paper with respect to this figure and was used as a short name for a specific cell line that contained the YFP/PRG construct. I have confirmed this with the senior author of the paper, Dr Caius Radu.

Dr. Stout’s statements are not true. The position of the L1210-YFP cells circled in Figures 2 and 4 of the paper must have been determined by non-invasive YFP imaging.

The “2012 JBC paper” is most bizarre and unprecedented. First and foremost, there is no explanation in the 2012 JBC paper as what technique was used to localize the position of the L1210 YFP cells in the mice as indicated by the dashed-line circles in Figures 2 and 4. The third-party “explanation” provided by Dr. Stout describing a conversation with the lead author, Dr. Radu, has no scientific meaning from page 12 of his report:

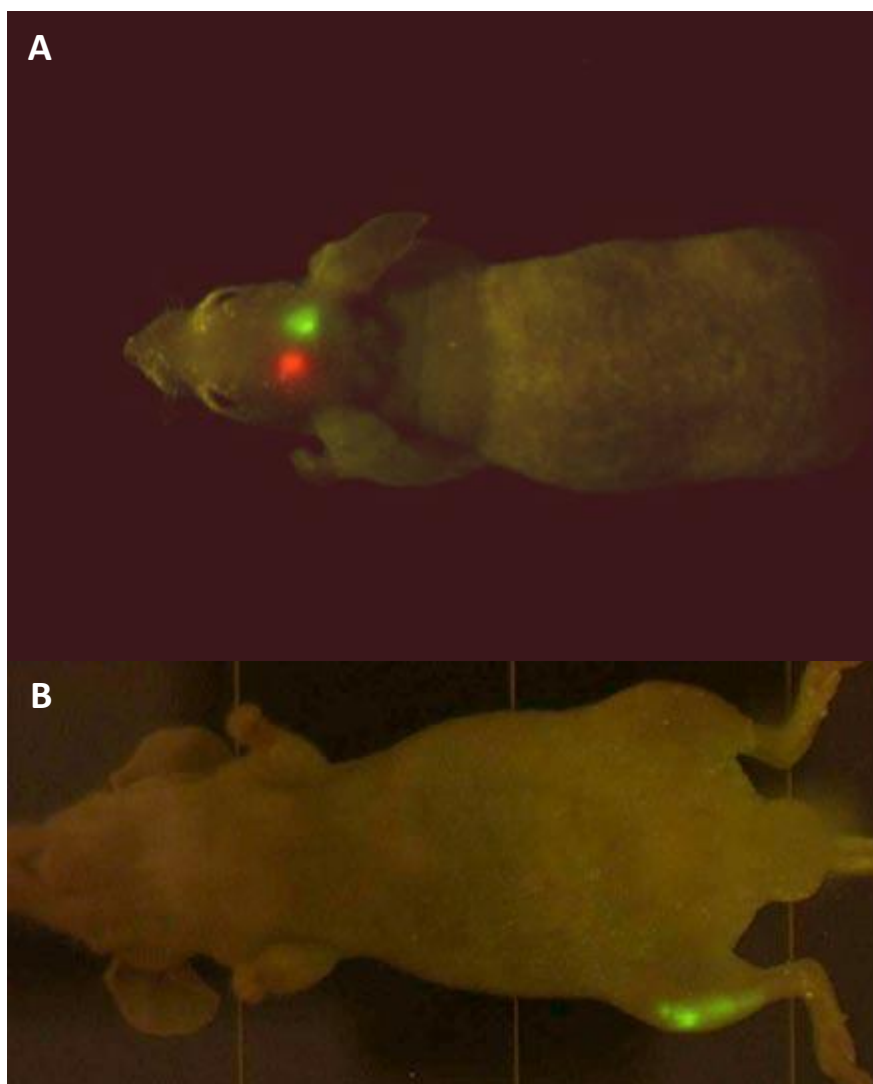
The use of the letters YFP was not defined in the paper with respect to this figure and was used as a short name for a specific cell line that contained the YFP/PRG construct. I have confirmed this with the senior author of the paper, Dr Caius Radu.

If Cell Sight did not want to hide the in vivo fluorescence imaging method it used in the “2012 JBC paper”, Dr. Radu would have followed the proper scientific procedures and published a correction in the JBC. It is clear that fluorescence imaging identified the position of the YFP cells in the mice and the methods were purposely and fraudulently left out of the “2012 JBC paper” by Cell Sight so Cell Sight would not be caught infringing AntiCancer’s patents. It is also noteworthy that Dr. Gambhir’s name is not on the “2012 JBC paper”, in contrast to other papers where he is a co-author with Dr. Yaghoubi.

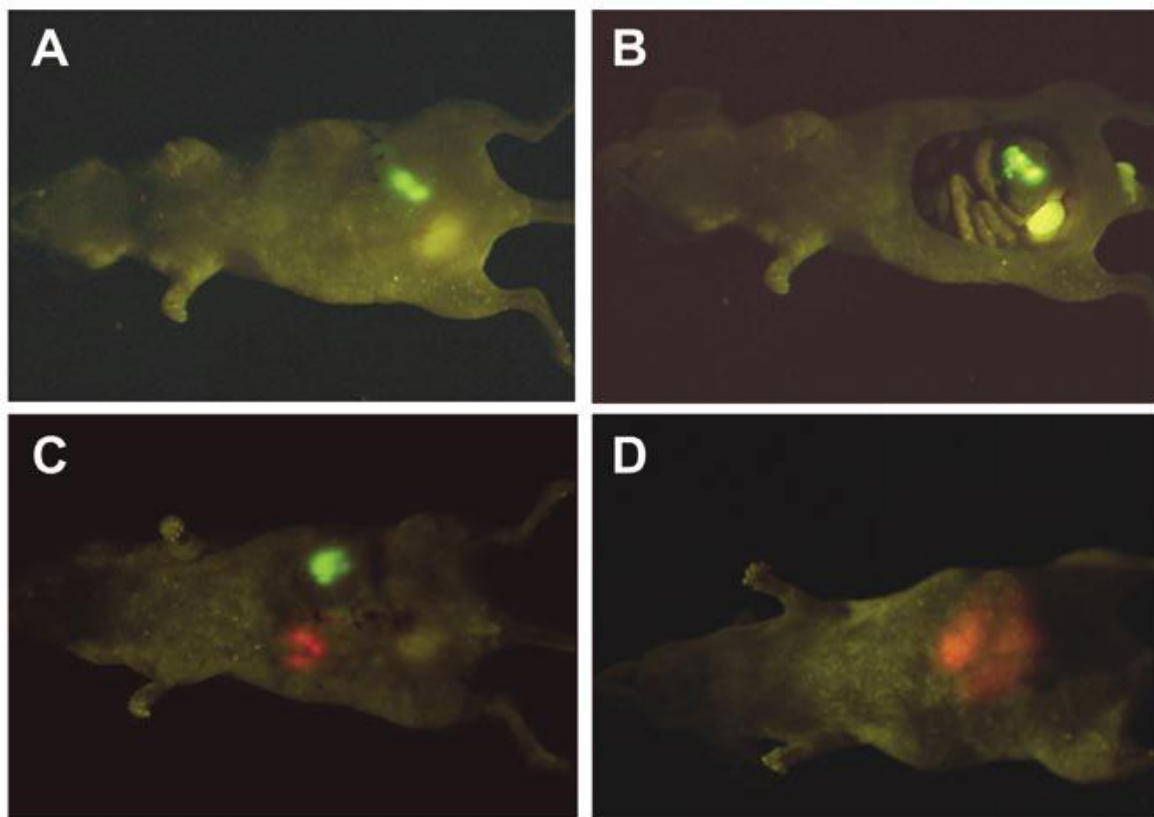
I declare under penalty of perjury that the foregoing is true and correct.

Dated: April 16, 2012

/s/ Robert M. Hoffman  
Robert M. Hoffman, Ph.D.



**Figure 1. Whole-body imaging of green fluorescent protein (GFP) and red fluorescent protein (RFP) tumors in the brain in a nude mouse.** (A) GFP- and RFP-expressing tumors implanted in the brain in a single nude mouse. The excitation light was produced with a simple blue-LED flashlight equipped with an excitation filter with a central peak of 470 nm. The image was acquired with a Hamamatsu charge-coupled device (CCD) camera. (B) GFP-expressing tumor implanted in the tibia of the right hind leg of a nude mouse imaged with the blue-LED flash light as in panel A (Yang et al. Facile whole-body imaging of internal fluorescent, tumors in mice with an LED flashlight. *Biotechniques* 39, 170-172, 2005).

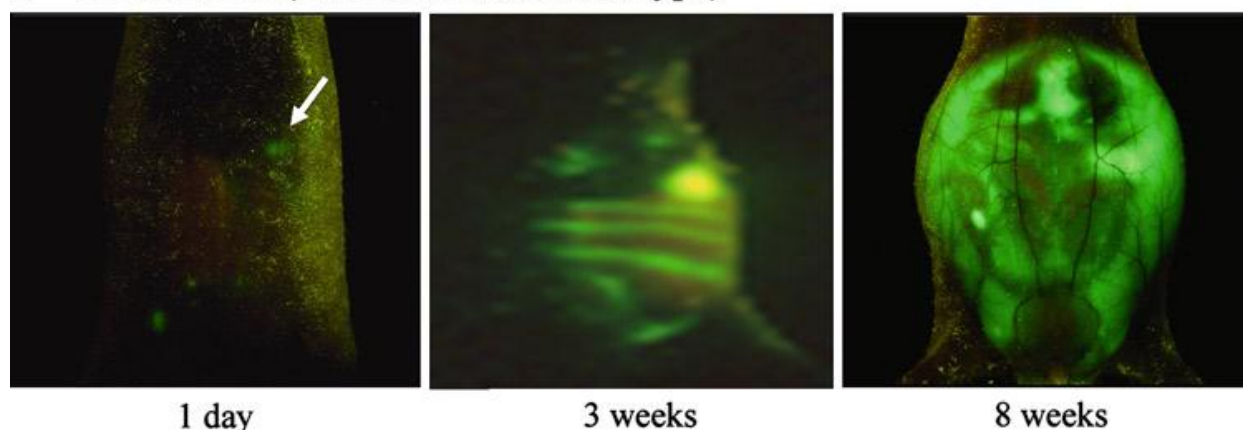
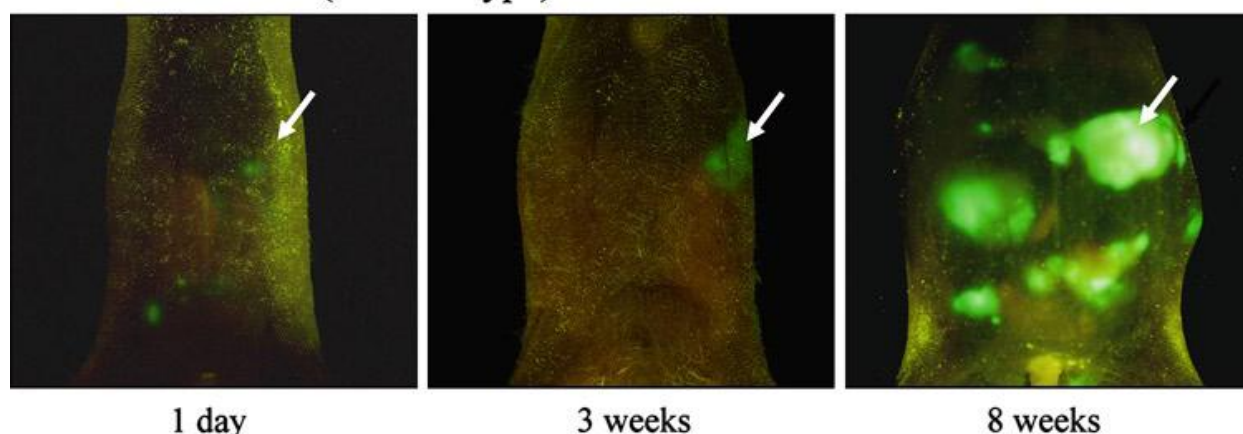


**Figure 2. Whole-body and open imaging of green fluorescent protein (GFP) and red fluorescent protein (RFP) tumors in nude mice.** (A) Whole-body image shows the GFP-expressing tumor on the colon imaged with the blue-LED flashlight. (B) Same as panel A, with animal opened. (C) Image of RFP-expressing tumor on the liver and GFP-expressing tumor on the pancreas in a nude mouse. The tumors were imaged with the blue-LED flashlight. (D) Whole-body image of a metastasizing RFP-tumor on the pancreas in a nude mouse. (A–D) The blue-LED flashlight was used as in Figure 1 (Yang et al. Facile whole-body imaging of internal fluorescent tumors in mice with an LED flashlight. *Biotechniques* 39, 170-172, 2005).

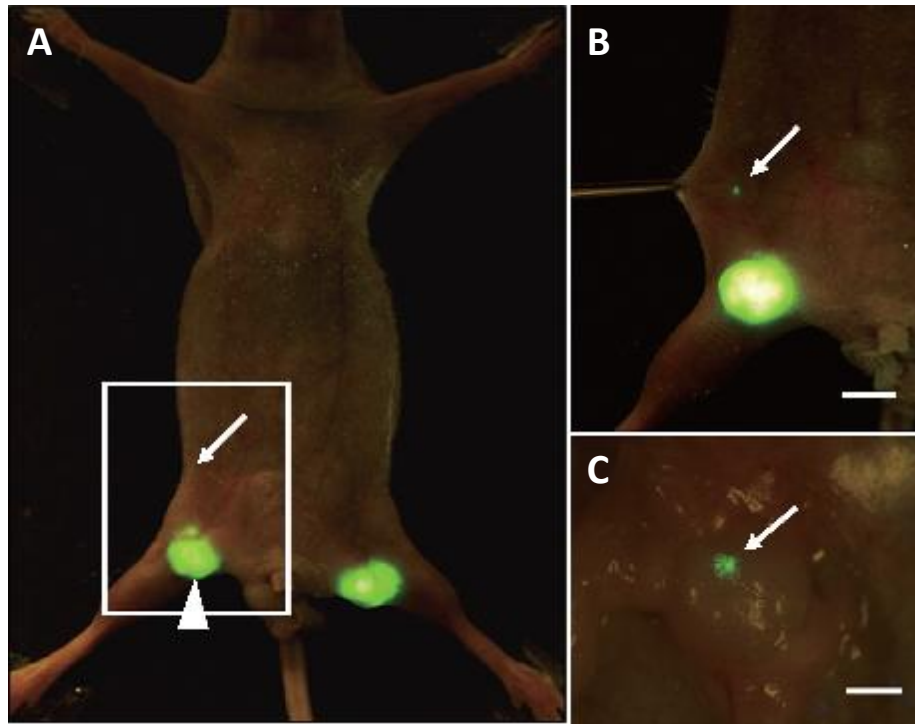


**Figure 3. Photographs of the real-time fluorescence imaging systems used for monitoring peritoneal metastases in live mice.** (a) A handy GFP detection device, consisting of a halogen lamp with a flexible guide equipped by band pass filter and an eyeglass type long-pass cut filter of the operator used in the animal facility. (b, c) Mice are held in the operator's hand and the metastatic foci in the peritoneum are visualized by external illumination of the *blue* light (*green* fluorescence emission in (b)) or *green* light (*red* fluorescence emission in (c)) in living mice without anesthesia (Nakanishi et al. Noninvasive and real-time fluorescence imaging of peritoneal metastasis in nude mice. *In: In Vivo Cellular Imaging Using Fluorescent Proteins: Methods and Protocols*, Methods in Molecular Biology, vol. 872, Robert M. Hoffman (ed.), Springer Science+Business Media, 2012. DOI 10.1007/978-1-61779-797-2\_6).

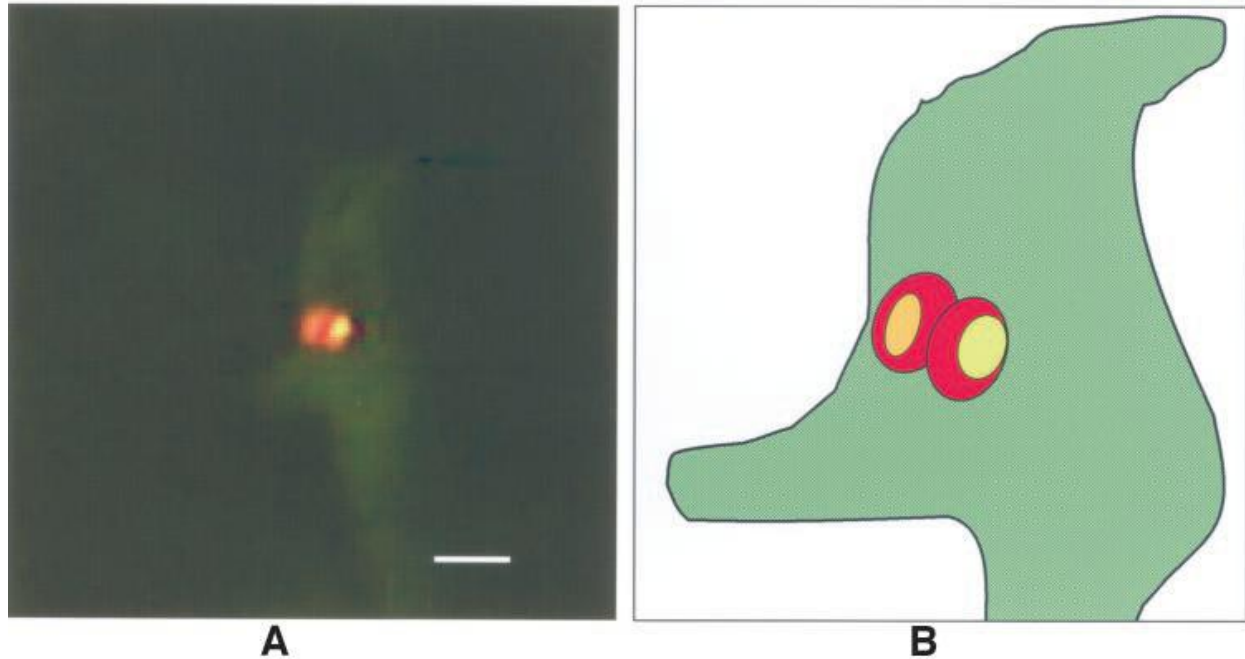


**a GCIY-EGFP (Ascites accumulation type)****b MKN28-EGFP (Nodular type)**

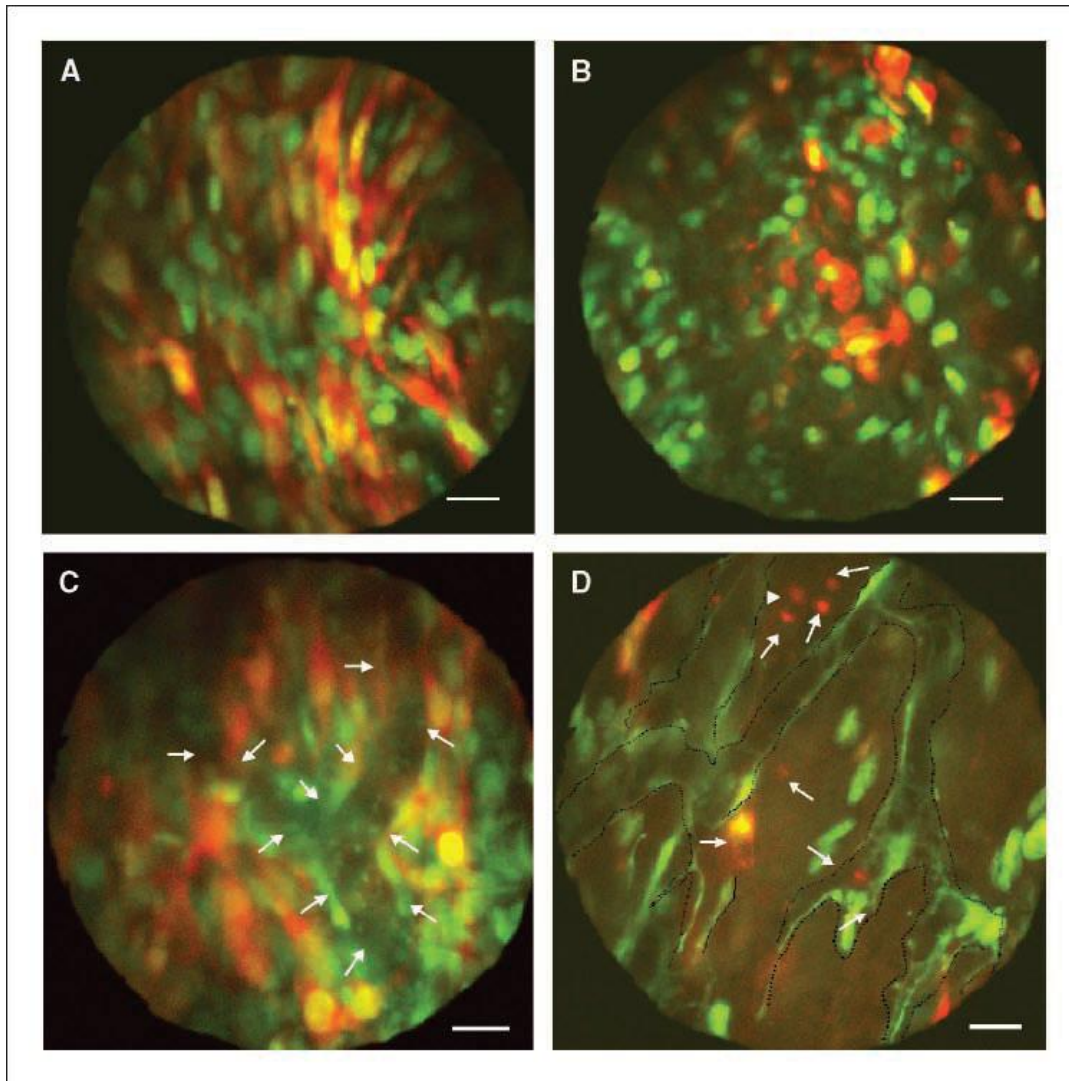
**Figure 4. Visualization of peritoneal metastasis development after intraperitoneal injection of tumor cells in nude mice. (a, b)** External visualization of peritoneal metastasis 1 day, 3 weeks, and 8 weeks after injection of GCIY-EGFP cells (**a**) and MKN28-EGFP cells (**b**) in live mice. Omental metastasis with GFP fluorescence (*arrows*) is observed 1 day and 3 weeks post injection. Production of ascites is revealed in a stripe-shaped pattern 3 weeks post injection and in a diffuse pattern 8 weeks post injection in (**a**). With a gastric cancer cell line of nodular type (MKN28-EGFP), no substantial accumulation of ascites is observed throughout the experiment (Nakanishi et al. Noninvasive and real-time fluorescence imaging of peritoneal metastasis in nude mice. *In: In Vivo Cellular Imaging Using Fluorescent Proteins: Methods and Protocols*, Methods in Molecular Biology, vol. 872, Robert M. Hoffman (ed.), Springer Science+Business Media, 2012. DOI 10.1007/978-1-61779-797-2\_6).



**Figure 5. External and internal visualization of the inguinal lymph node metastasis by a GFP fluorescence dissecting microscope system. A,** external view of nodal micrometastasis (arrow) formed 3 weeks after s.c. inoculation of  $5 \times 10^6$  GCIY-EGFP cells into the lower abdominal flank of nude mouse (arrowhead) under illumination with blue light in an intact mouse. **B,** enlarged view of (A). Bar, 10 mm. **C,** internal view of nodal micrometastasis (arrow) formed 3 weeks after s.c. inoculation of tumor cells through skin incision in a live mouse. Bar, 1mm (Yokoyama et al. Biological significance of isolated tumor cells and micrometastasis in lymph nodes evaluated using a green fluorescent protein-tagged human gastric cancer cell line. Clin Cancer Res. 12(2), 361-368, 2006).



**Figure 6. Real-time whole-body image of mitotic cell in ear of a live mouse.** Real-time image of mitotic tumor cells in the ear of a live mouse captured 12 h after cell injection. **A**, high-magnification image. *Bar* = 50  $\mu\text{m}$ . **B**, schema of **A** (Yamamoto et al. Cellular dynamics visualized in live cells *in vitro* and *in vivo* by differential dual-color nuclear-cytoplasmic fluorescent-protein expression. *Cancer Research* **64**, 4251-4256, 2004).



**Figure 7. Whole-body, noninvasive, subcellular imaging of drug response of dual-color mouse mammary cancer cells and GFP stromal cells in the live GFP nude mouse with and without doxorubicin.** Dual-color MMT cells were injected in the footpad of GFP transgenic nude mice. **A**, whole-body image of untreated dual-color MMT cells in the footpad of a live GFP mouse. Note the numerous spindle-shaped dual-color MMT cells interdispersed among the GFP host cells. **B**, whole-body image of MMT dual-color cancer cells in a live GFP nude mouse 12 h after treatment with doxorubicin (10 mg/kg). The cancer cells lost their spindle shape, and the nuclei appear contracted. **C**, whole-body image of dual-color MMT tumor. Numerous dual-color spindle-shaped MMT cells interacted with GFP-expressing host cells. Well-developed tumor blood vessels and real-time blood flow were visualized by whole-body imaging (arrows). **D**, in vivo drug response of dual-color MMT tumor 12 h after i.v. injection of 10 mg/kg doxorubicin. All of the visible MMT cells lost their spindle shape. Many of the cancer cells fragmented (arrows). Tumor blood vessels were damaged (dashed black lines), and the number of cancer cells was dramatically reduced 12 h after chemotherapy. Bar, 20  $\mu$ m (Yang et al. Whole-body subcellular multicolor imaging of tumor-host interaction and drug response in real time. *Cancer Res.* **67**, 5195-5200, 2007).